



SUS
TAI



NA
BI

2022

PRACTICING
THE MINNING
OF THE FUTURE,
TODAY.



LI
TY



RIO DESERTO
SYNERGY WITH YOU

This Sustainability Report presents the main achievements of Rio Deserto throughout the year of 2022. In the following pages, you will find results and initiatives that reinforce the company's integrity, transparency, and commitment to ethical, environmental, social, and economic principles. This material was produced according to the Brazilian General Data Protection Law (LGPD), respecting the relevant guidelines. Have a good reading!

Message from the Administration Office

We are practicing mining of the future, today. Building a new world, now. Employment and income generation, responsibility for health, safety, and environment, the engagement with the communities and the support for education remain fundamental principles of Rio Deserto's existence. With initiatives aligned to the Sustainable Development Goals (SDGs), the company continues to reinforce its compromise to Southern Santa Catarina.

In 2022, we learned, innovated and advanced in several areas. Today, our units are reference in technology, quality and innovation. We search, each time more, to promote safe, welcoming and thriving work environments, that enable professional and personal development, as well as the appreciation of our employees.

The awards and recognition earned over the year by Rio Deserto prove the resilience and the strength of our mining operations. State-level titles, such as the ESG Award 2022, and national titles, such as the Best Practices in Mining Award 2022, confirm our integrity.

In agribusiness, with Ragro Mineral Solutions, we are also achieving significant milestones. Our mineral fertilizers are gaining traction in the agribusiness sector and are already being used in various crop plantations, particularly in the Midwest region of Brazil. Meanwhile, the products directed to animal nutrition, distributed exclusively by Cargill, have become reference both in Brazil and in the international market.

We continue evolving in our business, always with honesty and commitment. We believe in the strength of an

competitive and innovative industry, in the sustainable development of the organizations and the creative and transformative capacity of the human being. We are aware that we still face many challenges and remain vigilant to the necessary adaptations to continue our legacy of trust, caring for the planet, and protecting life.

HEITOR AGENOR ZANETTE
GIOVANNI PAGNAN ZANETTE
VALCIR JOSÉ ZANETTE
Rio Deserto's Directors

JOÃO GABRIEL PAGNAN ZANETTE
EDUARDO NETTO ZANETTE
Financial and Administrative Advisors



ABOUT RIO DESERTO

Rio Deserto is present in nine municipalities of Santa Catarina and has sixteen business units, whether productive, administrative, or research-based. The company aligns tradition and innovation and has an important path in the mining, agribusiness, ceramics, glass and steel sectors. It also operates in eucalyptus afforestation and reforestation, making significant contributions to economic, social, and environmental areas.

In mining, Rio Deserto is in the mineral coal production chain, with extraction processes and beneficiation, directing the ore towards electricity generation. In agribusiness, it maintains Ragro Mineral Solutions brand, offering supplies destined to vegetal strengthening and animal nutrition.

In the ceramics, glass and steel sectors, RD Fundentes stands out, providing fluxing and fluxing minerals aimed at increasing the resistance and densification of the materials in which they're applied.

Thanks to our commitment and developing, Rio Deserto is the first coal mining company from the South of Santa Catarina to be certificated in the three management guidelines: ISO 9001 (Quality Management), ISO 14001 (Environmental Management), and ISO 45001 (Occupational Health and Safety Management). It's also pioneer as a signatory company from the National SDGs (Sustainable Development Goals) Movement in Santa Catarina.



Business To source mineral supplies.



Vision To be a national reference in the sourcing of mineral supplies.



Mission To contribute with the national development through extracting, industrializing and selling mineral products, transforming mineral resources in solutions.



Values Rio Deserto's behavior reflects a focus on the socioeconomic development of the country. All decisions are made towards the growth of both the company and its employees, customers, suppliers, communities, and partners in general.

> Innovation

Technological improvement, development and valuation of the employees' initiatives, in the continuous pursuit of results for the organization.

> Commitment

With the clients, employees, suppliers, inspection agencies, community and safety.

> Ethics

To respect the principles, politics and procedures defined by the company and guided by the Law and society, working with honesty, professionalism and transparency.

> Socio-environmental Responsibility

To contribute with the conscious and sustainable development of society, promoting the full exercise of citizenship, and respecting the environment.

UNITS



1. Criciúma (SC)

- Head Office
- Novo Horizonte Mine Unit
- RD Engineering
- Oriental Asset Management Ltda.

2. Içara (SC)

- 101 Mine - Extraction Unit

3. Cocal do Sul (SC)

- RD São Geraldo
- Floresul - South Afforestation and Reforestation Ltda.

4. Urussanga (SC)

- RDLAB Laboratory Reference
- Ragro Mineral Solutions

5. Siderópolis (SC)

- Shipping Box
- Metallurgical Unit

6. Treviso (SC)

- Cruz de Malta Mine Extraction Unit

7. Capivari de Baixo Consórcio (SC)

- Capivari de Baixo Unit

8. Lages (SC)

- Lages Unit

9. Correia Pinto (SC)

- Correia Pinto Unit

JUST ENERGY TRANSITION

A Visit to Diamante Energy Production

The facilities and operations of Diamante Energy Production (Jorge Lacerda Thermal Power Complex), based in Capivari de Baixo, were showcased to the entire coal production chain in 2022.

During the visit, partner companies were honored with a sign and the following message: “Diamante Energy Production is grateful for the partnership and the joining of forces, on behalf of continuing the activities related to the coal production chain. Together, we are responsible for the growth and development of the Southern region of the state”.



Council of the Just Energy Transition Program

The board that integrates the Council of the Just Energy Transition (TEJ) Program visited Rio Deserto’s Extraction Unit 101 Mine in 2022. The action was part of the itinerary for the first technical visit to Santa Catarina. The council is coordinated by the Chief of Staff Office from the Federal Government and was established by the Law nº 14.299/2022. The goal is to promote a just energy energy transition for the coal mining region of Santa Catarina.

Claudir Afonso Costa and Domingos Savio Marques, from the Chief of Staff Office, attended the visit; Maria Ceicilene Aragão Martins, Henryette Patrice Cruz and Daniel Alves Lima, from the Ministry of Mines and Energy (MME); Fernando Araldi, from Ministry of Regional Development; Anderson Miguel Chaves de Cordeiro, from the Government of Santa Catarina; the president from the Brazilian Mineral Coal Association (ABCM), Fernando Luiz Zancan; and Márcio Zanuz, also from ABCM, were also present. The National Geology Service also contributed and provided logistic support.



The itinerary included the entire production chain

The itinerary in the Southern region of Santa Catarina also included a visit to the Imbituba Harbor, Tereza Cristina Railway, Jorge Lacerda Thermal Power Complex (managed by Diamante Energy Production Ltda.), SATC Technological Center (CTSATC), as well as environmental restoration areas.

All the involved participated in the discussions and visits, reinforcing the participation of the interested parts on the Just Energy Transition, demonstrating the effective implementation of the Law nº 14.299/2022. The Law considers environmental, economic, and social impacts, and values energy and mineral resources.



SUSTAINABLE DEVELOPMENT GOALS (SDGs)

SDGs 2023 Badge is awarded to Rio Deserto and Ragro Mineral Solutions

Rio Deserto and Ragro Mineral Solutions have been awarded the 2023 SDGs Badge. The certification indicates that both companies have fulfilled their commitments to join the National SDGs (Sustainable Development Goals) Movement in Santa Catarina in the year 2022.



Rio Deserto has been a signatory company in the National SDGs Movement in Santa Catarina since 2020, being the first coal mining company from the South of Santa Catarina to be a part of the movement. Ragro Mineral Solutions has joined the Movement in the beginning of 2022. During the ceremony, the companies were represented by the Financial Advisor, João Gabriel Pagnan Zanette.





SDGs on the Agenda

The importance of the SDGs (Sustainable Development Goals) in the business activities was highlighted during the presentation of Rio Deserto’s case at event promoted by the Criciúma Local Committee of the National SDGs Movement in Santa Catarina, in reference to the SDGs on the Agenda Week, in 2022. The meeting, themed “Why are we SDGs? - Corporate field in focus”, seeked to establish an open dialogue, allowing the exchange of information and conections.

SDGs on the Agenda is promoted by the National SDGs Movement in Santa Catarina, always on the last week of May. In 2022, besides the local committee actions, the state coordination carried out online actions.

SDGs in Practice

With presentations and dynamics, the employees of Ragro Mineral Solutions met a little more about the SDGs (Sustainable Development Goals). The action was promoted by the company in reference to the SDGs in Practice Week, in September.

During the presentation, it was highlighted the main concepts as well as the initiatives taken by company in order to comply with the SDGs. The dynamic, in which the employees should keep balloons on the air, even when people were taken off the group, was useful to show the importance of team work to achieve the SDGs goals, at the company or in society in general.





BENEFITS

Rio Deserto offers several benefits to the employees, ensuring access to quality services.



Partnership with clinics and laboratories

Partnership with laboratories and clinics (psychology, odontology and other) to ease the employees' access to medical exams.



Periodic check-up exams

The employees from the production units of Rio Deserto must have periodic check-up exams according to their position.



In-company medical assistance

Campaigns to raise awareness about diseases, medical appointments, referral to specialists, periodic check-ups and vaccines are actions taken by Rio Deserto's medical assistance.



Health insurance

Rio Deserto employees have access to a health insurance with discounts ranging from 30% to 70% of the tuition, according to their salary range.



Life insurance

Rio Deserto offers life insurance to the employees, contributing with 50% of the tuition costs.



Partnership with universities and language centers

Rio Deserto maintains partnership with universities and language centers, easing the employees and their families’s access to education through special discounts.



Milk

All Rio Deserto’s employees receive, monthly, 24 liters of milk.



Acicard Card

The Acicard Card is available to the employees and is exclusively to buy medicine. The expenses will be debited from the payroll.



Cafeteria at the company

In the production units of Rio Deserto, daily meals are served and prepared according to the guidelines of a registered nutritionist. The company covers 80% of the cost of each meal.



Meal allowance

Employees at Rio Deserto units who follow the coal mining industry workers’ agreement receive a meal allowance during their vacation month.



Uniform

Rio Deserto provides uniforms to the employees from the production units in order to guarantee uniformity and organization.



Transport

Employees at Rio Deserto’s production units have access to company-provided transportation. The vehicles follow pre-established routes.



PRODUCTS

Rio Deserto Mining



Mineral Coal

An important source of electrical energy, mineral coal is obtained after the processing of ROM (run-of-mine coal) and is used as fuel (heat source) in thermal power plants. Throughout the process, ash, sulfur, volatile matter content, and calorific value are adjusted to the required granulometry according to market needs. In Southern Santa Catarina, this mineral is linked to the economic development of several municipalities.



Pyrite (Iron Sulphide)

It's a source of sulfur used at the correction of sulfur contents in the cast iron. It's result of the mineral charcoal processing.



RD Fluxes

Fluxing and flux minerals that enhance the mechanical strength and densification of materials. Used in the ceramic industry to provide gloss, transparency, densification, and control of dimensional variation. In metallurgy, it serves to fluidize slag, replacing fluorite.

Ragro Mineral Solutions

For over 20 years, Ragro Mineral Solutions has been providing solutions to the agribusiness and maintains, as one of its advantages, the use of Marine Silicon in the composition of the products destined for Vegetal Nutrition. The application makes the plants more resistant to fungi and insects, aside from activating metabolic routes responsible for inducing resistance induction. The disposal of silicon on the leaves promotes a better water utilization and plant architecture, strengthening the photosynthetic capacity.






Currently, the resistance inducers's line from Ragro Mineral Solutions is constituted by four products: **Gran Protect Max, Gran Start Mn+, Mays Zn e Induktor Si+**.





It's a mixed mineral fertilizer for foliar application primarily composed of Copper, Potassium, Phosphorus and Silicon. It's formulation promotes **nutritional balance** and **enhances the plant's defense structures**, increasing the plantation's welfare and **it's profitability**.

Benefits

-  Enhances fungicides;
-  Increased efficiency in disease control;
-  Less defoliation;
-  Reduction in forced ripening;
-  Higher thousand grain weight (TGW).



GUARANTEE LEVELS		
Water-soluble elements	P/P (%)	P/V (g/L)
Phosphorus (P ₂ O ₅)	5,0	67,50
Potassium (K ₂ O)	2,0	27,00
Copper (Cu)	1,5	20,25
Total element	P/P (%)	P/V (g/L)
Silicon (Si)	6,0	81,00

Density: 1,35 g/cm³
Physical nature: Suspension

MAPA Register number: SC 001685-3.000004



It's a mixed mineral fertilizer used through foliar application and composed mainly of Manganese and Silicon. It's very important for critical moments of the cultures. It promotes **nutritional balance** and **enhances the plant's defense mechanism**.









GUARANTEE LEVELS

Water-soluble elements	P/P (%)	P/V (g/L)
Manganese (Mn)	8,5	123,25
Sulfur (S)	4,0	58,00
Nitrogen (N)	1,0	14,50
Total element	P/P (%)	P/V (g/L)
Silicon (Si)	5,0	72,50

Density: 1,45 g/cm³
Physical nature: Suspension

MAPA Register number: SC 001685-3.000003

Benefits

-  Contributes to detoxicating plants filled with ROS (Reactive Oxygen Species);
-  Stimulates vegetal development;
-  Important for the photosynthesis process;
-  Benefits the roots development;
-  Promotes the production of specific enzymes;
-  Increased efficiency in disease control.



It's a mixed mineral fertilizer used through foliar application and composed mainly of Zinc. The formulation **prevents and corrects Zinc deficiency**.








GUARANTEE LEVELS

Water-soluble element	P/P (%)	P/V (g/L)
Zinc (Zn)	6,0	78,00
Sulfur (S)	4,0	52,00
Nitrogen (N)	1,0	13,00
Total element	P/P (%)	P/V (g/L)
Silicon (Si)	3,0	39,00

Density: 1,30 g/cm³
Physical nature: Suspension

MAPA Register number: SC 001685-3.000026

Benefits

-  It's an important enzymatic activator;
-  It's essential to tryptophan synthesis;
-  It stimulates proper vegetal growth;
-  It enhances the photosynthetic capacity;
-  It helps against biotic and abiotic stress.




The Induktor Si+ is a source of copper complexed with an organic molecule, providing safety in applications and high bioavailability to the product. **Its unique formulation is certified for organic agriculture.**








GUARANTEE LEVELS

Water-soluble element	P/P (%)	P/V (g/L)
Copper (Cu)	6,5	86,45
Sulfur (S)	3,0	39,90
Total element	P/P (%)	P/V (g/L)
Silicon (Si)	7,0	93,10

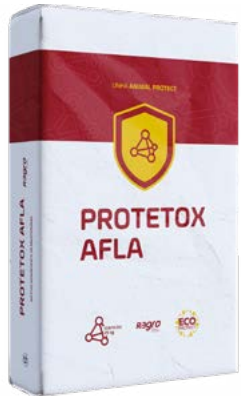
Density: 1,33 g/cm³
Physical nature: Suspension
MAPA Register number: SC 001685-3.000002

 IT'S AN INSUME PROPER TO BE USED IN ORGANIC PRODUCTION. IT'S USE IS CONDITIONATED TO THE CRITERIA OF EACH ORGANIC REGULATION ACCORDING TO THE RESPECTIVE CERTIFICATE ISSUED. INSPECTED BY ECOCERT.

Benefits

-  It increases the plant's productive potential;
-  It acts on nitrogen fixation and on the proteins's metabolism;
-  Plants become more tolerant and prepared for biotic and abiotic stress;
-  It's an important activator and enzymatic component;
-  Increased photosynthetic efficiency.

Animal Protect



Protetox Afla

It's an additive that absorbs mycotoxins. It's composed of calcium and sodium aluminosilicate and tested *in vivo* for poultry and swines which allows a better exploitation of nutrients and reflects on the animal's productive performance. It's a natural product that, when used on animal feeding, has the ability to form a highly stable complex with the mycotoxins. By being ingested by the animal it absorbs and retains the aflatoxins and inhibits the absorption before it reaches the blood strain. The product does not have smell nor flavor.



Bugram Protect

Bugram Protect is an anti-caking additive recommended for formulations of products used in animal feed. It acts on grains, meals, and feeds by removing moisture, functioning as an anticaking agent, and protecting against fungi and toxins. It is entirely natural (organic input).



Notox

To understand the challenges and the damages caused by mycotoxins on animal production, it were developed smart adsorbents, from a rigorous selection of mineral technologies. The products are add to the animal's feed and they are strategically developed to execute an fast and efficient absorption of the mycotoxins, without absorbing nutrients and vitamins, nor causing any negative impact on the animal feeding.

The Notox line is the outcome of years of research and development which led to extremely efficient solutions, comproved by evaluations made *in vivo* and *in vitro*. Overall, seven products are part of the line: **Notox One, Notox Poultry, Notox LS, Notox Reproduction, Notox Swine, Notox T6 e Notox.**



The Notox line is exclusively distributed by Cargill in Brazil and in the international market.

Notox One

A mycotoxin adsorbent additive made of minerals able to adsorb the main mycotoxins that affect the poultry, swines and ruminants. It has enhanced action against aflatoxins and fumonisins.

Notox Poultry

It's a solution for the challenge that mycotoxins represent in the poultry industry. The product reunites four different technologies that prove it's efficiency in a broad spectrum, being either *in vitro* or *in vivo*.

Notox Reproduction

Broad-spectrum mycotoxin adsorbent additive for female swines, composed of minerals that are able to adsorbing, mainly, zearalenone, as well as fumonisins, trichothecenes (T-2), aflatoxin, and ochratoxins.

Notox Swine

It's mycotoxin adsorbent additive made of minerals and able to absorb fumonisins, trichothecenes (T-2), zearalenone, aflatoxins and ochratoxins. The product was validated *in vivo* against the main mycotoxins that affect the swines during the nursery phase.

Notox LS

It's a broad spectrum mycotoxin adsorbent additive, made of special aluminosilicates and organic additives, which eases the absorption of polar and apolar mycotoxins.

Notox T6

A mycotoxin adsorbent additive with an advanced technology to fight the harmful effects of Deoxynivalenol (DON). It has the aim to mitigate the presence of the main mycotoxins found on the field, within which DON stands out - an highly toxic substance, hard to absorb and that causes significant economic losses.

Notox

An aflatoxins and fumonisins adsorbent additive, made of Calcium and Sodium aluminosilicate and tested *in vivo* on poultry and swines.



INNOVATION AND TECHNOLOGY

Cobusiness SATC: business ideas are structured

In 2022, Rio Deserto has concluded the first cycle of the Corporative Innovation Program (Cobusiness), executed in partnership with SATC, with at least four structured business ideas, being two related to chemical routes and other two related to the technology field.

As a member of the Corporate Innovation Program since it was launch in 2021, Rio Deserto's participation is marked by intensive activities involving trainees, leaders, and managers, aiming to identify, develop, and enhance new business opportunities.

In the first step, the trainees met the company's structure, process, products and services, through visits to the

units. They also participated in training and immersion dynamics about innovation. In the second step, the students identified 100+ new business opportunities for Rio Deserto and fifteen were chosen to be presented. In the third and last step, it were defined four main ideas to the viability studies.





Awareness campaigns about Brazilian General Data Protection Law (LGPD)

Rio Deserto holds for their employees awareness campaigns about the Brazilian General Data Protection Law (LGPD). Besides adjusting themselves according to the Law, guaranteeing the privacy of the all the employees, suppliers and clients’s personal data, the company also seek to alert about the necessary precautions on daily activities.

Mora than adapt and implement the process according to the Law, the goal is to reinforce, to the employees and their families, the importance to look after personal data and always seek to know how your informations are being

used. Some highlighted suggestions were: don’t share passwords, always question if it is necessary to inform your personal data, such as CPF and RG, to finish a purchase and don’t give personal information in unknown apps and websites.



Data safety

Since 2020, Rio Deserto holds an internal committee to manage information and requirements related to the Brazilian General Data Protection Law (LGPD). The company also maintains politics that establish, in a clear and direct way, the safety measures that must be adopted in every situation.

LGPD rules the activities that involve the data collection, storage and share. Its provides more safety, more privacy and transparency in the use of personal data.



EDUCATION

SATC: more than 60 years bulding knowledge

In the South of Santa Catarina, education is strengthened by the charcoal mining. The sector has created and maintains one of the most renowned education institutes in Brazil, the Charitable Association of the Coal Industry of Santa Catarina (SATC). The institute is considered an social extension of the mining industry since the education and technology *campus* is maintained by monthly contributions made by the mining companies, besides the students tuition.

Innovation and social action are a part of SATC's DNA since it's foundation in 1959. The institution became reference on technical education and in forming citizens compromised with the society. It acts

since the elementary school up to post-graduation, always innovating with teaching methodologies and preparing the students with scientific and cultural knowledge.

SATC has an infrastructure with 60 laboratories, 85 classrooms, sports complex and green areas. It also acts on the research field and laboratory services, bringing new perspectives for sustainable development with the Technological Center SATC (CTSATC).



Scholarships

Rio Deserto understands the importance of knowledge on people’s life and, because of this, promotes practices related to education. The company offers scholarships and partnerships with education institutes, easing the employees’s access to a quality education.

Every scholarship request made by the employees is analyzed, bearing in mind the established conditions and, mainly, the importance of a technical formation to assist the company’s needs.



Young Apprentice

The Young Apprentice Program, from Rio Deserto, was launched in 2018 and is destined to young people from 15 to 21 years old, that are attending or have concluded high school. The initiative is coordinate by the Human Resources Department.

The company concluded the year 2022 with a total of 16 young apprentices. All of them have benefits such as registration in the work permit for a period of 24 months, transportation allowance, and a monthly payment, according to the Law.



Internship Program

The Rio Deserto Internship Program exists for almost 15 years and has the purpose to identify potential talents and to strengthen responsible practices on internships, contributing to the personal and professional development and guaranteeing growth opportunities. In 2022, the company had 30 interns.

The interns from Rio Deserto are paid a monthly salary and have the right to benefits such as transportation allowance, health insurance and other. They also participated in trainings, campaigns and internal programs, acquiring technical and social skills.

Rio Deserto's practices have been recognized multiple times with the IEL Internship Award. In 2016, in addition to the state stage, the company stood out with the IEL Best Internship Practices Award at the national level. In 2018, the Metallurgical Unit achieved first place recognition at the state level in the Micro/Small Business category. In 2020 and 2022, the titles were won after Rio Deserto demonstrated the digital transformation carried out in the Internship Program practices.

10° Interns Meeting

The importance of communication and professional attitude was the theme of the 10th Rio Deserto Interns Meeting, held on August 18th (the day that celebrates Intern Day). This action, which is part of the company's annual Internship Program activities schedule, is held every year and promotes the integration of interns.



15° Employability Fair

Rio Deserto’s participation in the 15° Employability Fair, in 2022, has surpassed the expectations. The event happened on October, 18th and 19th at the education institute SATC, in Criciúma. An estimated of 2,5 thousand people have visited the place in the two days of the event. Rio Deserto’s stand was one of the most crowded and the company reached the number of 215 resumes received.

The fair has marked the return of the in-persons events after the Covid-19 pandemic. The edition was also considered one of the most important, counting with the presence of more than 50 exposers and emphasizing the companies from the Southern and Northern region of Santa Catarina, besides organizations from other states.

During the fair, Rio Deserto was also present on a Conversation Circle with the high school students, being one of the companies participants of “Podcast SATC”. The Employability Fair is part of SATC Work Week (SWW) and it’s an initiative from SATC’s internship department to strengthen the relations with the corporate sector.



A busy stand during all the fair

Rio Deserto’s stand was one of the most visited during all the Employability Fair. The company’s interns participated on the two days of the event and reported about the internship experience to the visitors. In the stand, it was also installed a TV presenting institutional videos from Rio Deserto, Ragro Mineral Solutions and RDLAB, as well as the mining equipment and other process realized at the company.

There was also the presence of Joanin, the company’s mascot, that uplifted the stand. And, during the closure, an employee from Rio Deserto and his partner brightened the event with a musical number - counting with guitar and harmonica - bringing joy to the fair.

Paths & Choices

The Paths & Choices Project was founded in 2015 and happens every two years. The initiative is kept by the Human Resources Department and aims to provide professional orientation, besides encouraging the employees and their families's education. The fourth edition was realized in 2022 and counted with 20 participants. Overall, more than 60 people are participated in the project.



Talks and thoughts about the professional career

The Paths & Choices Project 2022 had within the schedule a dialogue about professional career, the activity took place at the Criciúma Business Association (Acic) and reunited Rio Deserto's employees as well as their families.

The talk was mediated by Rio Deserto's Human Resources Analyst, Alice Constantino Joaquim, and had the participation of representatives from education institutes. The goal was to contribute on their professional orientation, allowing the participants to know the professions and to choose consciously and safely their field of business.

Besides the talk, the schedule also had an practical activity with individual feedback. That when is made the introduction and mapping of the results achieved for each participant, being identified the professions and paths that better fit each profile.

Students's visit

In 2022, Rio Deserto received the visit from the students of the SATC's technical courses. The goal was to introduce the practical experience, showing them how their technical knowledge, learned in the classroom, are applicable.



Administration

Students from the first semester of the Administration course from SATC visited Rio Deserto's Main Office, in May. The goal was to learn about the routines and processes of the People Management department. The action was part of SATC's Technologic Week and during the week the students are taken in technical visits to the companies from the region, in order to immerse themselves on their formation field.

The visit has allowed to students to know their formation field in practice and realize the care the company has with the people and how that differential contributes to the organization's development. Among the subjects talked about, it were highlighted the internal process, the recruitment structure, integration, development, the internship program and the beneficent actions.

Automotive Maintenance

The students from the fourth semester of the SATC's Automotive Maintenance technical course visited the Metallurgical Unit, from Rio Deserto, in November. The activity integrates the student's educational journey and during the visited the practical process and job opportunities in the region are presented to the students.

The students met the machines maintenance process, as well as the projects and manufacture of parts to increase the equipment's efficiency and reduce coasts. It were also presented the steps and the challenges that involve restoring the machines for underground mining, being possible to make a correlation with the subjects learned in the classroom.

Young Entrepreneur Clube

In 2022, the Young Entrepreneur Club Project was promoted by the Municipal Government of Criciúma, through the Secretary of Education and Board of Economic Development, Technology and Innovation, with the support from Criciúma Business Association (Acic).

The goal was to promote a visit from entrepreneurs to the schools and from the students to the companies, having in mind the goal to develop entrepreneurs skills on the students, with the opportunity to see, in practice, the daily routine of a company. Overall, more than 300 students from 9^o grade participated on the project, from 23 different schools.

At the Project Young Entrepreneur Club, Rio Deserto endorsed two education institutes: Public School of Basic Education Básica Professora Iria Zandomênego De Luca (based in

Naspolini) and Public School of Basic Education Serafina Milioli Pescador (based in Operária Nova).

The activity began in June, when one of the company’s administrators, Valcir José Zanette, along with the financial and administrative advisors, respectively, Eduardo Netto Zanette and João Gabriel Pagnan Zanette, as well as the Human Resources Department and Communication Department, visited the schools and shared their personal and professional journey and experiences.

Then, it was the turn of the students visiting the company. The students from the Public School of Basic Education Professora Iria Zandomênego de Luca met the Metallurgical Unit, and the students from the Public School of Basic Education Básica Serafina Milioli Pescador visited the Novo Horizonte Mine Unit. By the end of the project, the students delivered innovation challenges to the companies.





PERSONAL AND PROFESSIONAL DEVELOPMENT

Management and Business Experience Program (PGVE)

The second class from the Management and Business Experience Program (PGVE), promoted by Criciúma Business Association (Acic), was attended by Rio Deserto's professionals: the Human Resources Coordinator, Jaci Baggio Vieira and the Legal Department Coordinator, Fernanda Lapolli de Biasi. The activities happened in 2022. Overall, eight modules related to the company's fundamental field were discussed.

The PGVE's modules talked about the following subjects: Leadership and Goals, People Management, Business Intelligence, Business Strategy,

Finance Management, Innovation, Decision Making Models and Business Sustainability.

The strategic training was developed in partnership with Federation of Business Associations of Santa Catarina (Facisc), Empreender Foundation and UniSociesc. The modules were ministrated by renewed teacher, with knowledge and experience in the national and international market, on their specialization field.

Evolve Program

Rio Deserto’s Program for Personal and Professional Development received the name “Evolve” in 2022. The word reflects the content of the trainings, that aim to promote important knowledges and to contribute for the professional and social life of the employees.

The goal is to involve, to train and to enhance the team’s abilities and skills, strengthening the company’s culture, procedures and strategies. The action is developed at the units from Rio Deserto according to the strategic planning and team’s needs.



■ Ragro Mineral Solutions

The Evolve Program was held three times along with the employees from Ragro Mineral Solutions, in 2022.

In the first edition, it were addressed subjects such as “Rules Applicability and Internal Procedures”, “Safe behavior and the use of Personal Protection Equipment (EPIs) and Collective Protection Equipment (EPCs)”. “Corporate environment: health and hygiene at the workplace” and “Team work, communication and initiative”.

At the meetings of the second edition, it was highlighted the variety of subjects, going from technical matters, such quality control and products, to behavior aspects, that strengthen the company’s culture. It was addressed subjects such as: “The Ministry of Agriculture, Fishing and Supply (Mapa) and the GMP+ guidelines”, “Proactivity

Initiatives”, “Knowledge about the Ragro Products” and “Working with Purpose”.

On the other hand, the third edition was focused on leadership and on the employees that work on the administrative, quality and safety department. On the schedule, it was emphasized themes like “Time Management”, “Effective Communication”, “Conflicts Management”, “Emotional Intelligence” and “Professional Attitude”.



Metallurgical Unit

The employees’s involvement and participation marked the five meeting from the Evolve Program, from the Personal and Professional Development, taken place at the Metallurgical Unit, in 2022. Among the subjects addressed, it was highlighted the themes “Teamwork and communication”, “Safe behavior in the work environment”, “Corporative place: organization and environment”, “Rules Applicability and Internal Procedures” and “Pride to belong”.



Correia Pinto Unit

The employees from Correia Pinto Unit participated, in 2022, in the Evolve Program, from the Personal and Professional Development. Three subjects were highlighted: “Safe Behaviour”, “Interpersonal Relationship” and “Time Management”.



Computing course to the employees

The employees from Ragro Mineral Solutions participated on a Basic Computing Skills Course offered by the company for free. The classes happened in the months of April and May in 2022. The meeting took place in a venue near the unit, in Urussanga, on Mondays and Wednesdays, from 6:00 p.m to 9:00 p.m, summing eight meeting of three hours each. Overall, 11 employees from Ragro participated on the action. The goal is to achieve digital inclusion, making technology accessible to most part of the company’s employees.



Leadership Development Program

With the goal to develop and improve the management skills among the leaderships, it was realized the Leadership Development Program at Extraction Unit Cruz de Malta Mine, in 2022. The action had three meetings, with the runtime of one hour each.

In the schedule, it was emphasized subjects such as “Transforming Leadership”, “Time Management” and “Communication and Feedback”. The subjects were structured in a way that could help the leaders with behavior management and how to enhance the human resources.

EMPLOYMENT AND INCOME

Rio Deserto + Employment

In search for candidates for the job vacancies, Rio Deserto has held, in 2022, the “Rio Deserto + Employment” action, in work units and in townships from their region.

In April, the activity happened at the Extraction Unit 101 Mine. Professionals from the Human Resources Department stayed at the unit during the whole day and assisted almost 70 people interested in working at the company.

In May, the action “Rio Deserto + Employment” took place at the mountains region from Santa Catarina. Professionals from the Human Resources Department assisted the community at Palmeira City Hall, to receive resumes and they were also

present at Senai, based in Otacílio Costa, to talk to students from the Electromechanic Technical Course.

In September, the “Rio Deserto + Employment” initiative was part of the Itinerant Exhibition on Sustainable Development Goals (SDGs), held in the entrance hall of the Municipal Government of Içara. The event brought together several companies from the region.



Industry Week

Rio Deserto was one of the companies participants in the opening event from the Industry Week, promoted by Fiesc South, Sesi and Senai, in partnership with the Municipal Government of Criciúma and the Corporate Union. The action happened in 2022, at Praça Nereu Ramos, in Criciúma.

During the event, professionals from Human Resources Department of Rio Deserto advertised job and internships opportunities and guided the interested to apply their resumes on the website.



Job Fair, in Serra Catarinense

Rio Deserto participated on the 1º Job Fair held in Otacílio Costa, in the Serra Catarinense region. The event took place at the Town Square. Over 100 people visited the company’s stand and learned more about the Correia Pinto Unit, based near the place. Overall, 65 resumes were received. The company’s participation was important to highlight

the vacancies and the benefits of working at Correia Pinto Unit.

The 11º Job Fair was implemented by Sesi/Senai, two institutes from Fiesc, with the support of the Municipal Government of Otacílio Costa.





HEALTH

Immunization against the flu

Almost 500 employees from Rio Deserto received, for free, the flu vaccine (H1N1, H3N2, B) in 2022. The action that is held every year was promoted by the Medical Department with the support from Sesi.



World Health Day

In reference to the World Health Day, celebrated on April, 7th, the Medical Department from Rio Deserto promoted, in 2022, an internal campaign with guidance about healthy habits to the employees. The goal was to raise awareness about the importance of healthy habits. The activities happened on the months of April and May, at the company’s units. During the moment, several subjects were approached, like healthy eating habits, the importance of drinking water and practicing exercises on a regular basis, mental health and vaccines as an important factor to prevent deases.

Kindness is in My Blood Project

In 2022, Rio Deserto has reached to 155 employees registred as blood donors to Hemosc (a Blood Center located in Criciúma). In the same period, mora than 60 donations were made. The company raise awareness and encourages the employees and they families to donate blood through the Kindness is in my blood Project, promoting it to be a periodic practice.

Since the beginning of the program, in 2016, mora than 350 donations were already made by the employees and their families, mentioning Rio Deserto as the reason. The actions happen during the whole year, but it's possible to identify a raise during the moths of June and November, when the World Health Day and the National Blood Donor's Day are celebrated, respectively.

I Donors of Hope

Rio Deserto has received the certify "Donors of Hope", from Fahece and Cepon (Ontology Research Center). The recognize takes into account the company's partnership with Hemosc Criciúma during the whole year of 2022 and also the support to the production of t-shirts for the National Blood Donor's Week, held in November.

Fahece aims the provision of health services, management of public health units and promotion of health and knowledge through social, cultural, sports and education events. Face management engages a whole structure, including Cepon, in Florianópolis, Hemosc and Samu (Mobile Emergency Service).





White January

The campaign White January, known for raising awareness about mental health, was made, on Rio Deserto, by lectures, practices and talks with the employees. The actions, with the theme “Taking care of your mind is taking care of yourself” had the goal to raise the employees and their families’s awareness about the emotional health care. Believing everyone needs to have access to information about mental health services, the company also keeps a partnership with clinics related to mental and emotional health.



Green April

The campaign Green April raise awareness about health and safety at work and it was reinforced at the units from Rio Deserto during the Daily Talk about Health and Safety (DDSS), that happens in the beginning of every shift. During the month, a computer wallpaper also highlighted the theme. The month was chosen for having two important dates: April, 7th (Global Health Day), established by the World Health Organization (WHO); and April, 28th (World Work Safety Day), established by the International Labor Organization (ILO).



Yellow September

Reflecting messages and digital actions marked Yellow September (month designated to the appreciation of life) at the units of Rio Deserto. The initiatives promoted by the Human Resources Department had the aim to raise awareness and to educate the employees about the importance of emotional health. During the month, it was also highlighted information about the partnerships that the company keeps with psychological clinics, aiming the employees and their families’s mental health and emotional care.



Pink October

The prevention and the importance of self care were the subjects highlighted among the employees of Rio Deserto during Pink October, month dedicated to raise awareness about breast cancer, in 2022. The importance of having periodical checkups was highlighted in several ways at the company.



Blue November

The Blue November campaign, to raise awareness about men’s health, was realized at the units from Rio Deserto and organized by the company’s Medical Department, with the goal to educate the employees about the cares with their health and the importance of early prostate cancer diagnose. During the mont, the employees from Rio Deserto were benefited with eased access to exams.



Red December

The ways to prevent a Sexually Transmitted Infection (STI), the importance of check-ups and the awareness to the Hepatitis B and HPV vaccines were the subjects addressed during the Red December campaign, at the units from Rio Deserto. The goal was to raise the employees’s awareness about HIV/AIDS prevention.



SAFETY

SIPAT/MIN 2022

Practical activities, moments to raise awareness and ludic actions marked the 2022 SIPAT/MIN (Internal Week for Prevention of Work Accidents in Mining), from Rio Deserto. The schedule involved all company units. The goal was to reinforce the importance of team work, emphasizing attention to health and safety in all processes.

Among the topics covered in the meetings, special emphasis was placed on basic first aid, daily safety, emotional health, among others. In all units, a banner with the following phrase was also made available: ‘ZERO ACCIDENTS: a goal for every day! I sign up for this idea.’ The banner was signed by employees as a symbol of commitment to workplace safety.

SIPAT/MIN happens every year at Rio Deserto’s units and reinforces the periodic awareness efforts carried out by the Specialized Service in Occupational Safety Engineering and Medicine (SESMT).



21ª Cipamin

Rio Deserto was one of the participating companies in the 21st edition of the Mining Accident Prevention Internal Commission Seminar (Cipamin). The event, organized by the Regional Mineral Sector Commission (CRSM), took place at the auditorium of the Beneficent Association of the Coal Industry of Santa Catarina (SATC) in 2022. In addition to the presence of employees, the company’s participation was marked by the presentation of a lecture and a play.

The lecture emphasized instructions on the Fire Emergency Response Plan. In the play, the importance of raising awareness among employees regarding health and safety precautions at work for a happy life with family was highlighted. The schedule also included theoretical and practical training sessions.

The aim of the 21st edition of Cipamin was to disseminate good safety

and health practices to the workers, preparing members of the Internal Accident Prevention Committees (CIPAs) to proactively engage with workers in the mineral coal extraction industry. The event was supported by coal mining companies in the Southern region of Santa Catarina, SATC, and the Interstate Federation of Workers in the Coal Extraction Industry in the States of Paraná, Santa Catarina, and Rio Grande do Sul (Fitiec).



NR35 Course

Two NR 35 - Working at Height - courses were conducted at Rio Deserto’s Correia Pinto Unit in 2022. The aim was to reinforce the learning of those who had already participated in the training in the last two years and to train new employees for the execution of tasks at height.

The training was conducted by a professional from a workplace safety company based in the municipality of Otacílio Costa. The program’s content highlighted topics such as risk recognition, assessment, and control; fall protection measures; job-specific risks; first aid; proper use of safety belts; work procedures on platforms and scaffolds; personal protective equipment; equipment for supporting, anchoring, and securing tools for work at height, among others.



Training about dams

In 2022, a seminar and practical simulation on the Emergency Action Plan for Mining Dams (PAEBM) was conducted at Rio Deserto's Extraction Unit Cruz de Malta Mine. The training brought together employees and members of the Emergency Brigade, representatives from the Miners' Union, an external team responsible for Compliance and Operational Assessment, a summoned Registration Engineer, and members of the Civil Defense from the municipalities of Criciúma and Treviso.

During the days of activities, emphasis was placed on seminars, emergency evacuation drills, and practical simulations for situations involving overflow and structural rupture. Technical aspects of dam construction were also highlighted, along with the importance of geotechnical monitoring and the resources (human, material, and equipment) that should be employed in case of need.

The training schedule is part of the routine activities as mandated by the specific legislation of the National Mining Agency (ANM). At Rio Deserto, the dam, built in a single stage, is defined by a series of basins whose purpose is the treatment of water through the settling and clarification of the raw effluent from the mineral beneficiation process.

Through the PAEBM, it is possible to identify potential emergency situations and establish actions to be executed. The participation of civil protection and defense agencies, as well as the municipal government, is crucial given the responsibilities of both the company and public agencies, coordinating actions in the Self-Rescue Zone (ZAS) and Secondary Safety Zone (ZSS).

Emergency Brigades

All Rio Deserto units have Emergency Brigades composed of trained employees who can act in accident prevention and intervene in risk and emergency situations. The periodic training of this group of professionals is the responsibility of the SESMT (Specialized Service in Occupational Safety Engineering and Medicine), meeting the requirements of the Regulatory Guidelines.

DDSS

The Daily Health and Safety Dialogue (DHSD) is one of the practices carried out in Rio Deserto's production units at shift changes. The goal is to engage in a brief conversation with employees, highlighting topics such as teamwork, leadership, safety, time management, among others.

Emergency Drills

The practical experience of emergency situations was the goal of the emergency drills conducted at Rio Deserto's units throughout 2022. The actions were organized and led by the company's occupational safety department. The activities were primarily related to Emergency Plans 504 and 508 (Serious and/or Fatal Accident and Fire Fighting, respectively).

Security training sessions are frequent at the company

In Rio Deserto units, emergency training and drills are conducted regularly according to a schedule established by the occupational safety department. The aim is to train employees to prevent risks and respond effectively to potential emergency situations.



Training and Development

In 2022, Rio Deserto continued with training and internal development programs. Highlights include operational work procedure instructions, regulatory guidelines (NRs), Daily Health and Safety Dialogues (DHSD), health campaigns, environmental instructions, formation and retraining of brigades, leadership development, training sessions, workshops, lectures, and more.

Specialized Qualifications

Specific qualifications and training for the job foment skilled labor and enhance employee value.

>> Specific Training

Rains the employee for a specific role (under the supervision and guidance of experienced and qualified professionals).

>> Qualification for the Role

Trains the employee to cover the absence of another coworker (in case of necessity, such as vacations) and prepares them for future internal promotions.

Unit	Specific Qualification in the Role (total hours)	Training and Development (total hours)
Extraction Unit Cruz de Malta Mine	34.986,91	16.727,83
Extraction Unit 101 Mine	50.734,73	19.015,32
Novo Horizonte Mine Unit	1.200,00	733,02
RD Engineering	--	302,59
Metallurgical Unit	--	2.217,35
RDLAB Laboratory Reference	1.217,50	826,50
RD São Geraldo	560,00	281,56
Shipping Box	1.200,00	223,15
Correia Pinto Unit	9.860,00	2.573,22
Ragro Mineral Solutions	2.240,00	2.386,00
Head Office	--	838,65
Productive Unit II	--	13,14
TOTAL	101.999,14	46.138,34



VALUING PEOPLE

Rio Deserto Talents

The “Rio Deserto Talents” project, which aims to map behavioral profiles, was conducted at RDLAB Referência Laboratorial – Rio Deserto’s laboratory, in 2022. Coordinated by the Human Resources Department, the initiative seeks to identify the potential of employees, preparing them for career opportunities through internal selection processes, rotation, or succession planning.

The first stage of the project involves the application of a digital methodology that provides mapping the employees’ profiles. Subsequently, the Human Resources Department provides feedback to management and participants, individually. The activities are conducted with the aid of technology (tablets, notebooks, and/or cell phones), and responses are compiled instantly.

The purpose is to understand the relevant competencies and skills of employees, promoting the appreciation of people within the organization.



Rio Deserto Baby Project

Understanding that the birth of children is a very special moment in the lives of the employees, Rio Deserto maintains the Rio Deserto Baby Project. The purpose is to celebrate the arrival of the children by providing them with personalized clothing. In 2022, 33 employees were contemplated by this initiative.

The personalized clothing with the phrase “My family is part of Rio Deserto” is a way for the company to welcome the newborns.

To receive the gift, the employee must inform the administrative department of the unit about the expected birth of their child. The delivery takes place at the workplace itself.

The Rio Deserto Baby Project began in 2019. Since the start of the project, over 70 personalized baby outfits have been delivered to the employees.

Human Value Project

Rio Deserto honored the employees for their years of service to the company. In the 5th edition of the “Coffee & Human Value” event, more than 40 workers who completed their length of service with the company between July 1, 2021, and June 30, 2022, were awarded.

At the company, recognitions begin when an employee completes 10 years of service and continue every 5 years until retirement. From 2017 to 2022, nearly 200 employees have been honored.

The initiative also includes recognition for retirement, which is usually carried out on the date of retirement at the unit where the employee works. In total, over 40 retirement recognition plaques have been presented at Rio Deserto units.

Employees Honored in 2022

10 YEARS

Extraction Unit Cruz de Malta Mine

- Anderson Guessi Mariano
- Claudinei Rzarscki
- Cristiano José Legnani
- Flávio Tasca
- Rauli Rocha
- Renaldo De Souza Bittencourt
- Robson Botini
- Rodrigo da Silva
- Edson Fiera
- Jakson Moraes
- Marcos Antônio Fogiarini
- Oraildo de Assunção
- Sidnei Carniato

Ragro Mineral Solutions

- Anderson Valdati
- André Beluco
- Givanildo Ariati

Extraction Unit 101 Mine

- ◊ Leandro Ghisleri Pinheiro
- ◊ Lucivaldo Celso
- ◊ Marcelo Pereira Florindo
- ◊ Márcio Consoni de Borba
- ◊ Mateus Celso
- ◊ Fernando da Conceição Marques
- ◊ Geovane Rosso Felipe
- ◊ Giovanni José Donadel
- ◊ Guilherme do Nascimento Galindro
- ◊ José Manoel Barbosa Junior
- ◊ Reginaldo Boaventura
- ◊ Tadeu Filipe Machado

Novo Horizonte Mine Unit

- ◊ Agenor Selinger

Metallurgical Unit

- ◊ Felipe Possamai Mota
- ◊ Lucas Roussenq De Souza

Correia Pinto Unit

- ◊ Silvio Adriano Rodrigues

15 YEARS

Head Office

- ◊ Kelen Gonçalves Vieira Marcon

Extraction Unit Cruz de Malta Mine

- ◊ Eizandro Luiz Pagani
- ◊ Nelson Leandro

Metallurgical Unit

- ◊ Marcel Duarte da Silva

Extraction Unit 101 Mine

- ◊ Douglas Zeferino Soares
- ◊ Edivaldo Sobrinho Velho

20 YEARS

Novo Horizonte Mine Unit

- ◊ Reginaldo Manenti dos Santos

Correia Pinto Unit

- ◊ Jean Carlos Atanásio

40 YEARS

Head Office

- ◊ Sandrelí Vieira de Jesus



Contest “Drawing a Rio Deserto Christmas”

The creativity of employees’ children marked the 9th edition of the “Drawing a Rio Deserto Christmas” contest, held in 2022. A total of 43 drawings were submitted, with two chosen from each category (children aged 4 to 6, 7 to 9, and 10 to 12 years old). The winning drawings, themed “Christmas is Love for Others,” were featured on the company’s traditional Happy Holiday cards, distributed to employees, clients, and suppliers. All participating children received a token of appreciation.

Meet the Winners

Category 4 to 6 years old

– Bruno Vitorino Brunel – son of the employee Carlos Alberto Brunel (Extraction Unit Cruz de Malta Mine)

- Miguel Puziski Colonetti – son of the employee Juliano Rene Colonetti (Head Office)”



Category 7 to 9 years old

– Julia Kostanecki Hildebrando – daughter of the employee Fernando Silveira Hildebrando (Extraction Unit 101 Mine)



– Elena Pires Gomes – daughter of the employee Maicon Urbano Gomes (Extraction Unit Cruz de Malta Mine)



Category 10 to 12 years old

Alice Demétrio Dutra – daughter of the employee Fabricio Damásio Dutra (Metallurgical Unit)



– Gregorio Guarezi – son of the employee Daiana Teixeira (Ragro Mineral Solutions)



Miners are honored in religious celebration

A religious celebration honoring miners brought together over 150 coal mining professionals at the Sanctuary of the Sacred Heart of Merciful Jesus in Içara, in 2022, during the Feast of the Divine Mercy. Rio Deserto was represented by nearly 70 employees, including workers from extraction and administrative areas.

The celebration was open to the community and presided over by Dom Vitório Pavanello – Archbishop Emeritus of the Archdiocese of Campo Grande (Mato Grosso do Sul). For the mass, the float carrying the image of Saint

Barbara (patron saint of miners) was decorated with raw coal and green leaves, representing the evolution of mining and companies’ environmental care. At the main entrance of the Sanctuary, a tunnel also mimicked underground galleries.

The miners from Rio Deserto participated in the celebration by carrying the flag of the municipality of Içara, the company banner, and the offertory. Among the most emotional moments, special mention goes to the Blessing of the Helmets, at the end of the celebration, which brought miners from all coal companies to the altar.

Feast of the Divine Mercy

The Feast of the Divine Mercy begins on Easter and ends one week later, on Divine Mercy Sunday. Divine Mercy Sunday was instituted by Pope John Paul II with the aim of honoring the Sacred Heart of Jesus, the patron of the Sanctuary in Içara.



SPECIAL DATES



International Women's Day

International Women's Day, on March 8, was celebrated differently at Rio Deserto in 2022. Along with the toast, female employees received a card with an instruction to make another woman's day, a coworker, even more special. The result was the exchange of messages, calls, phrases, social media tags, among other actions.

The aim of the idea was to further stimulate recognition among women, highlighting their importance in the company and encouraging them to speak to each other about how essential each one is.





Mother's Day

In 2022, Rio Deserto's female employees who are mothers were honored with a personalized gift bearing their own names. The date is always remembered in the company, highlighting one of the organization's main pillars, which is the appreciation of family.



Father's Day

Music, videos, gratitude, and emotions marked the tributes to the fathers held at Rio Deserto's units. The honor aimed to value all workers who are fathers and dedicate themselves to the well-being of their families. Each employee who is a father received a personalized porcelain mug. Father's Day is considered one of the most important dates celebrated at Rio Deserto, as approximately 500 workers are fathers.



Christmas

In December, Rio Deserto distributed Christmas kits to its employees. The initiative marked the company's gratitude for everyone's dedication throughout the year 2022. Along with the kit, Christmas cards featuring drawings made by employees' children through the "Drawing a Rio Deserto Christmas" project were also handed out. The distributions took place at the end of each work shift, emphasizing the importance of unity and family appreciation.



ENVIRONMENT

Greenhouse Gas Emissions Management (GHG)

Greenhouse Gas Emissions Management (GHG) is a global concern. Rio Deserto, committed to sustainable development, is following this movement, quantifying emissions from all its units, and aiming for initiatives and projects that contribute to mitigating the effects.

Solid Waste Management Program

Rio Deserto’s Solid Waste Management Program (PGRS) includes the collection of waste deposited in selective collection bins, sorting at the waste center, and commercialization with licensed companies. All waste generated at Rio Deserto’s units is tracked through traceability. These actions can be verified through the opening of Waste and Rejects Transportation Manifests (MTR) on the Environmental Institute (IMA) portal.



Sustainable Water Management

At Rio Deserto, effluents from coal mining are treated through physical-chemical processes. The procedure includes techniques such as aeration, neutralization, and sedimentation in impermeable basins, carried out at Effluent Treatment Stations (ETEs), located within the units themselves. The treated water is reused in underground equipment, cleaning, and bathrooms. In the case of the Extraction Unit 101 Mine, the excess is also reused in the local industry and agriculture, fully complying with environmental legislation requirements.



Environmental Remediation

The environmental recovery methods used by Rio Deserto are based on criteria developed by the Advisory Technical Group (GTA). The techniques are the same as those applied in other parts of the world, such as soil shaping, clay sealing, application of a constructed soil layer, and finally, introduction of vegetation. After the work, monitoring is still carried out to ensure the quality of the recovery and the balance of the ecosystem.

In a decade, Rio Deserto has already recovered more than three million square meters (much of this territory was not part of the company's environmental liability). In addition to the revitalization of degraded areas, the company also maintains areas of native forest in the cities of Orleans and Siderópolis, in Southern Santa Catarina.

Afforestation and Reforestation

Rio Deserto engages in eucalyptus afforestation and reforestation in the Southern region of Santa Catarina. The method used is direct planting, which reduces soil erosion and compaction, preventing soil loss and contamination, and significantly reducing negative environmental impacts on physical, biotic, and anthropic environments. These actions are carried out in compliance with environmental and forestry legislation.



World Environment Day

Employees of Rio Deserto and their families participated in an ecological trail in June, in the Santo Antônio community, in Treviso. The action was promoted by the company in commemoration of World Environment Day. The route of the White Waterfall Trail was guided by the biologist and coordinator of the Felinos do Aguai Institute, Michele Ribeiro Luiz, and by the coordinator of the Alouatta Institute, Paulo Cadallora.

The journey through nature provided the group with the opportunity to learn more about the local flora and fauna, as well as the importance of conserving and preserving natural environments and water resources.



Employees Receive Ecological Kits

Seeds, a small pot, a bit of soil, and lots of love. That was the composition of the ecological kit given to Rio Deserto employees during the month of June, in celebration of World Environment Day. The date is celebrated every year at the company to encourage habits of preserving natural resources among employees and their families. Among the seeds in the kits, there were species such as colorful ipê, embaúba, white fig tree, sunflower, baby's breath, and even vegetables like arugula and parsley.



Socio-environmental Projects

I Felinos do Aguaí

The Felinos do Aguaí Institute is a Civil Society Organization of Public Interest (OSCIP) dedicated to the conservation of wild felids in the Aguaí State Biological Reserve and its surroundings. The project, created in 2006 and headquartered in Siderópolis, receives support from Rio Deserto and serves the municipalities of the Southern Carboniferous Region of Santa Catarina, contributing to environmental conservation through scientific research, environmental education, ecological health, and engagement with local communities.

In 2022, one of the highlights of the Environmental Education Program was the return of in-person sessions post-COVID-19 pandemic, enabling a more interactive education approach and directly reaching over 2,600 individuals. In the Wildlife Research and Monitoring Program, progress was

made with discoveries involving the ecological niche of the cougar (Puma Concolor) in the Southern region of Santa Catarina.

The Ecological Health Program, on the other hand, achieved significant results covering three municipalities within the Aguaí State Biological Reserve (Treviso, Siderópolis, and Nova Veneza). They received free services for the sterilization and vaccination of domestic animals. In total, 288 sterilizations were performed, as well as the immunization of nearly 120 animals against various diseases.

In engaging with local communities, one of the most impactful actions was the production of a guide for rural landowners to protect their herds from pumas, aiming to minimize conflict between people and wildlife.





SOCIAL PROJECTS

Project “Bola Cheia 2022”

Rio Deserto was one of the supporting companies of the social project “Bola Cheia 2022,” promoted by the Municipal Government of Siderópolis, which promotes sports and social inclusion.

The “Bola Cheia 2022” project involved more than 700 people, including children, teenagers, young adults, and seniors. The initiative encompassed various sports disciplines such as futsal, field football, volleyball, jiu-jitsu, karate, table tennis, and athletics.

The project’s goal is community inclusion and socialization, encouraging people to engage in sports and enjoy competition. It also aims to develop teamwork, respect, discipline, combat sedentary lifestyles, as well as learning and mastering new skills.



Inspiration Project

Coal mining was the theme of the works created by women who are part of the Raiar do Sol Mothers' Club, from the Forquilha community in the municipality of Treviso. The action was part of the Inspiration Project, promoted by Rio Deserto. The aim was to value the handcraft work of the region, highlighting one of the main economic sources, which is coal mining.

On dish towels, the figures of coal miners, safety equipment, extraction processes, railway transportation, the image of Santa Barbara (patron saint of miners), and even the headquarters of Rio Deserto's Central Office were depicted through embroidery and patchwork (using fabric scraps). The borders, ribbons, and crochet work contributed to the finishing touches of the pieces.



■ A visit to the extraction unit and presentation of the works to the employees

Neighbors of the Extraction Unit Cruz de Malta Mine had the opportunity to visit the company's facilities in December 2022. The action concluded the Inspiration Project, carried out in collaboration with the Raiar do Sol Mothers' Club, where mothers living near the mine portrayed coal mining in crafts.

In the community visit itinerary, the highlight was the presentation by the engineering team, explaining the underground map of the mine and the methods of coal extraction and processing. Residents also visited some surface points such as the inclined plane, access to the underground, and conveyor belt.

Another highlight of the visit was participation in the DDSS (Daily Health and Safety Dialogue) at the beginning of the two work shifts. During this time, the works created by the Mothers' Club were displayed to the employees, reinforcing the community's appreciation for the coal mining workers.

More than three thousand sanitary pads are donated to GAPAC

During the week of International Women’s Day, Rio Deserto, with the support of its female employees, donated over three thousand sanitary pads to the Group for Support and Prevention of AIDS in Criciúma (GAPAC). The institution maintains a project aimed at monthly donations of sanitary pads and personal hygiene and cleaning products for girls and women in situations of social vulnerability. In addition to the sanitary pads, the company also delivered over 200 liters of milk to the organization for distribution among registered families.



Action in partnership with APAE Criciúma

Students from the Association of Parents and Friends of Exceptional Children (APAE) of Criciúma experienced special moments painting ceramic pots and planting flowers. The action, promoted by Rio Deserto in partnership with the educational institution, took place in 2022. The goal was to mark the beginning of spring in a playful way, providing joy.

In the hands of the students, colors and flowers brought the ceramic pots to life. Teachers Márcia Simão Santhiago and Elba Campos Rovaris (SAE - Specific Care Service) followed the action and helped in the development of the activities. The result was translated into many smiles.

Solidary Milk Project

In 2022, for the second consecutive year, nearly 16,000 liters of milk were donated by Rio Deserto to families and charitable organizations located in the municipalities of the Southern region of Santa Catarina. The significant amount of donation is the result of the partnership between Rio Deserto and its employees, through the Solidary Milk Project.

Every month, each Rio Deserto employee receives 24 liters of milk and can choose to donate a portion. Since 2015, when the project completed ten years of existence, the amount donated by employees has always been reinforced by the company, which contributes the same quantity. Therefore, if the employees donate 100 liters of milk in a month, the company donates an additional 100 liters, making it possible to benefit more people periodically.

Organizations benefited in 2022

- São Vicente de Paulo Retirement Home (Criciúma);
- Bairro da Juventude (Criciúma);
- Cantinho do Idoso Retirement Home (Criciúma);
- Social Assistance Reference Center – CRAS (Treviso);
- Social Assistance Reference Center – CRAS Vila Miguel (Criciúma);
- Sementes do Futuro Football School (Criciúma);
- Feistauer Elderly Assistance Home (Criciúma);
- Women’s Social Assistance Association of Criciúma – Afasc (Criciúma);
- Bom Jesus Retirement Home (Criciúma);
- Maria Tereza House for Cancer Patients Support (Criciúma);
- Support Group for Families of the Assembléia de Deus Church – Abecin (Criciúma);
- Support and Prevention Group for AIDS in Criciúma – Gapac (Criciúma);
- Social Pastoral of Içara (Içara);
- Abadeus Beneficent Association (Criciúma);
- Association of Parents and Friends of Exceptional Children – APAE (Siderópolis);
- Boa Vontade Legion – LBV (Criciúma);
- Parents and Friends of Autistic Association – AMA (Criciúma);
- Association of Parents and Friends of Exceptional Children – Apae (Criciúma);
- Assembleia de Deus Church – Social Crianças Deus Proverá (Siderópolis);
- Move the Waters Project - Casa do Pai Community (Criciúma);
- Beneficent Association of Social Action for the Needy Community – ABASC (Criciúma);
- Henrique Lage Hospital Foundation (Lauro Müller).

Support for organizations

Support for the social environment and initiatives focused on solidarity are part of Rio Deserto’s culture. In 2022, the company renewed monthly financial support contracts with charitable projects and institutions in Southern Santa Catarina. By contributing to the purpose of these entities, Rio Deserto also becomes a transformative agent of the reality embraced by them.



Criciúma Futsal Association

The Criciúma Futsal Association maintains a sports and educational base center, as well as performance teams that compete in state and national championships representing the municipality. The goal is to develop winners both on and off the court.



Association of Parents and Friends of Exceptional Children (APAE Criciúma)

Apae provides education, health, and social assistance services, forming a network to advocate for the rights of people with intellectual and multiple disabilities. Currently, the APAE of Criciúma serves almost 300 students.



Bairro da Juventude

Bairro da Juventude serves 1,600 children, teenagers, and young adults since four months old up to 18 years old. The institution’s main areas of operation focus on promoting the guarantee of rights through social assistance and comprehensive education, accomplished through programs, projects, and activities involving sports, culture, and vocational training. Additionally, they provide services such as meals, transportation, healthcare, and psychosocial support.



Women's Basketball

Cestinhas Criciúma Sports Association (Women's Basketball) aims to contribute to moral and ethical development and provide opportunities for talent to emerge in both sports and life. It also maintains social purposes such as reducing school dropout rates and keeping children and teenagers away from violence.



Triathlon School

More than 20 children and teenagers are part of the Triathlon School at the Mampituba Recreational Society. The training takes place after school hours for children and teenagers from ages between 7 and 17 years old. The institution recognizes sports as a tool for social transformation.



Judecri

The Association of People with Disabilities of Criciúma and the Southern Region of Santa Catarina State (Judecri) is a charitable organization whose aim is to advocate for the rights of people with disabilities by integrating them through actions related to sports, culture, and recreation, with the goal of improving their quality of life.



Show de Bola Institute

Show de Bola Institute is a social, sports, and cultural initiative that foment education and promotes healthy integration among people, encouraging respect and good daily practices. The organization serves children and teenagers regularly enrolled in public schools.



Nossa Casa

In 2022, Rio Deserto began supporting Nossa Casa Beneficent Association through the "Swimming for the Future" Project. Nossa Casa is a shelter home for children and teenagers, based in Criciúma. It is sustained through government agreements and, primarily, with the help of the community.



CERTIFICATIONS

Integrated Management System

In 2022, Rio Deserto was recommended to the maintenance of the ISO 9001 (Quality Management System), ISO 14001 (Environmental Management System), and ISO 45001 (Occupational Health and Safety Management System) certification guidelines. The audit was conducted by the certifying body TÜV NORD Brasil – BRTÜV (an independent Brazilian certification body belonging to the German TÜV NORD group). Rio Deserto is the first coal mining company in Southern Santa Catarina to be certified in all three management standards.

The Integrated Management System (IMS) at Rio Deserto consolidates quality, environmental management, and occupational health and safety processes. The procedures implemented in the units comply with the requirements of certifying bodies, enabling the achievement of recertifications and new certifications at the national and international levels. This recognition validates the commitment and dedication of the employees, as well as the company's responsibility towards its activities.





NBR ISO 9001:2015

Extraction Unit 101 Mine
 Extraction Unit Cruz de Malta Mine
 Novo Horizonte Mine Unit
 RDLAB Laboratory Reference Unit
 Correia Pinto Unit



NBR ISO 14001:2015

Extraction Unit 101 Mine
 Extraction Unit Cruz de Malta Mine
 Novo Horizonte Mine Unit



NBR ISO 45001:2018

Extraction Unit 101 Mine
 Extraction Unit Cruz de Malta Mine
 Novo Horizonte Mine Unit

MAPA



RDLAB Laboratorial Reference is registered with the Ministry of Agriculture and Livestock (MAPA) as a provider of laboratory analysis services in the areas of fertilizers, inoculants, and soil amendments. MAPA is responsible for managing public policies to stimulate agriculture and livestock, promoting agribusiness, and regulating and standardizing services related to the sector.

IMA



RDLAB Laboratorial Reference also holds the Certificate of Recognition for Laboratory Analysis of Water and Effluents from the Institute of the Environment of Santa Catarina (IMA). This document proves to the environmental agency and external entities that the laboratory follows the standardization norms for testing and calibration activities.

GMP+



Ragro Mineral Solutions was recommended to the maintenance of the GMP+B1 Production, Trade, and Services certification (an abbreviation that stands for quality assurance in the international market for suppliers of animal feed ingredients) in 2022. The audit was conducted by the certification body SGS.

GMP+ meets the requirements demanded by HACCP (Hazard Analysis and Critical Control Points), GMP (Good Manufacturing Practices), customers, and national and European legislation. Internationally, the certification is recognized as a safety badge that distinguishes industries producing animal feed ingredients.

Ecocert



Ragro Mineral Solutions holds the Ecocert Certificate of Conformity for the commercialization of organic products. Ecocert is an inspection and certification body founded in France in 1991, aimed at evaluating agricultural models based on respect for the environment.

QUALITY

State Congress of Improvement Teams

Members of the PIQ (Innovation and Quality Program) teams from Rio Deserto represented the company at the 22nd edition of the State Congress of Improvement Teams. The event took place in Florianópolis and brought together employees from companies that are part of the Santa Catarina CCQ (Quality Control Circles) Network.

During the Congress, it was also hold the 10th edition of the Santa Catarina Improvement Ideas Award closure ceremony, with the top project in each category being selected (Social, Health and Safety, Environmental, Quality, Productivity, and Lean – a methodology used to optimize production flows and streamline processes).



■ Santa Catarina CCQ Network

The Santa Catarina CCQ Network was formed on January 22, 1999, with the aim of strengthening Quality Management Systems in the state of Santa Catarina.



Continuous Improvement Committee (CIC)

Rio Deserto now has a Continuous Improvement Committee (CIC). The group, composed of professionals from various areas of the company, aims to align technology and management, generating cost reduction, comprehensive control, and prevention of process failures. The CIC was established in October 2022, and meetings are held regularly.

The committee consists of an administrative coordinator and technical coordinators. The administrative coordinator is responsible for planning the work, scheduling and coordinating meetings, preparing minutes, and monitoring the implementation timeline of actions. The technical coordinators actively participate in meetings and decision-making, provide support to the team in the units, define standards, and conduct training sessions.



Electronic Reports

One of the CIC's initial tasks was to survey, present, and validate all the reports used in the processes, aiming at standardization and computerization. The project was developed for the bulletins used in the underground process (Mechanized Set, Detonation Set, and Backfill).



AWARDS OF RECOGNITION

Certification of Social Responsibility in Santa Catarina

Transparency in actions, sustainability, and innovation were factors that secured Rio Deserto’s recommendation for the 11th time for the Social Responsibility Certification from the Legislative Assembly of the State of Santa Catarina (ALESC).

To obtain the title, the company proved its socio-environmental actions through data and the presentation of the Sustainability Report for the year 2021. The organizations enrolled were meticulously evaluated by the Mixed Commission for Social Responsibility Certification, composed of representatives from public bodies and civil society in Santa Catarina.

The recommendation for the Santa Catarina Social Responsibility Certification reinforces Rio Deserto’s commitment to aligning management practices with the Sustainable Development Goals (SDGs) and ESG (Environmental, Social, and Governance) principles, aiming to contribute to a socially just and sustainable future.

The Santa Catarina Social Responsibility Certification has been promoted by the Santa Catarina Parliament and partner entities since 2011. Its goal is to highlight organizations in Santa Catarina that have socio-environmental responsibility integrated into their management policies.

ESG Award 2022

Rio Deserto won the 2022 ESG Award, promoted by ADVB (Association of Sales and Marketing Executives of Brazil in Santa Catarina). The recognition was achieved in the Environmental Category through the project “Water for the Community,” carried out at the Extraction Unit 101 Mine.

The ADVB 2022 ESG Award succeeds the ADVB Corporate Citizenship Award (in which Rio Deserto had already been recognized seven times) and aims to acknowledge the best ESG practices (Environmental, Social, and Governance). It honors companies, foundations, and associations from both the public and private sectors in Santa Catarina that contribute to community well-being and environmental sustainability.

The awarded project

The “Water for the Community” project, which won the 2022 ADVB ESG Award, deals with the treatment of effluents from coal mining, water reuse in the production process, and provision for local agriculture and industry.

At the Extraction Unit 101 Mine, where the surrounding area consists of rice plantations, Rio Deserto provides treated water for agriculture. Over the years, the rice cultivation areas have expanded. The local industry has also started using treated water from mining in the production process.



Içara Highlight

The Extraction Unit 101 Mine of Rio Deserto was awarded the “Içara Highlight” trophy in 2022. This marks the 11th time that Rio Deserto has received this recognition. The initiative is promoted by the Içarense Newspaper with the aim of highlighting companies and entities headquartered in the municipality of Içara.

Rio Deserto has been contributing to tax revenue and job creation since 2011 when it started operations at the Extraction Unit 101 Mine. The company’s social involvement is also noteworthy, with actions that benefit the communities.

IBRAM Best Practices in Mining Award

Among the mining companies in Brazil that stood out in the 2022 Best Practices in Mining Award, promoted by IBRAM (Brazilian Mining Institute), is Rio Deserto. The company achieved 2nd place in the “Process Safety and Risk Management” category. In total, over 40 cases from mining companies across Brazil were submitted for the award, with the top 15 selected (three in each category).

This was the first time Rio Deserto participated in the IBRAM Best Practices in Mining Award. The registration was made through the Union of Coal Extraction Industry of the State of Santa Catarina (Siecesc), which is associated with the Brazilian Mining Institute.

The aim of the Best Practices in Mining Award is to encourage initiatives focused on sustainability, promoting transparency in the mining sector’s actions related to safety and quality of life, as well as the continuous improvement of industrial processes.

Awarded project

The award-winning project, “Online Emergency Control System,” facilitated the improvement of the Emergency Response Plan (PAE) at the Cruz de Malta Mine Extraction Unit of Rio Deserto. The system integrates monitoring and control tools to assist in potential incidents and emergencies. Thus, it allows not only the visualization of emergency alarm activations but also interaction and execution of commands in the process, aiming for quick resolution and minimization of impacts. All of this is achieved through computers and smartphones. The goal is to reduce response time, enabling preventive action in emergency scenarios and improving communication and command systems.



24th Brazilian Mining and Metallurgical Industry Excellence Award

In 2022, Rio Deserto received the 24th Brazilian Mining and Metallurgical Industry Excellence Award. The awarded project, “Nationalization and Automation of the Shuttle Car Equipment for Increased Efficiency,” highlighted the technology and innovation in the coal industry.

The project was developed at Rio Deserto’s Metallurgical Unit for use in the company’s extraction units. Shuttle Cars are transportation vehicles used in underground mining. These imported equipment require adjustments for operation and maintenance. The project aimed to increase the efficiency of coal transportation, reduce corrective maintenance, nationalize components, enhance safety, and automate operational control to monitor variables, improve operation, and enhance decision-making.



■ The award is considered a national icon

The Brazilian Mining and Metallurgical Industry Excellence Award, promoted by Minérios & Minerales Magazine, highlights the best projects related to increased productivity, the growing use of automation and digital technologies, cost reduction, innovation, processes, and concepts applied in mining companies across the country. Since 2010, Rio Deserto has already won 11 titles.

2022 IEL Internship Award

Rio Deserto won the 2022 IEL Internship Award at the state level. The company was recognized in the Innovative Company category through the RDLAB Laboratory Reference Unit.

The IEL Internship Award is held every two years with the aim of promoting innovation, recognizing, and encouraging the implementation of best internship practices in the academic and professional journey of young talents, contributing to a stronger and more competitive industry. The initiative is promoted by the Euvaldo Lodi Institute, an organization of FIESC (Federation of Industries of the State of Santa Catarina) System.

Rio Deserto has been recognized several times with the IEL Internship Award. In 2020, the title was achieved after Rio Deserto demonstrated the digital transformation carried out in the internship program practices. In 2018, the Metallurgical Unit won first

place recognition at the state level in the Micro/Small Business category. In 2016, in addition to the state level, the company was also highlighted with the IEL Internship Best Practices Award at the national level.

The Internship Program

Rio Deserto Internship Program has been in existence for nearly 15 years and aims to identify potential talents, strengthen responsible internship practices, contribute to professional and personal development, and provide growth opportunities. Rio Deserto interns receive a monthly payment and are entitled to benefits such as transportation allowance, meals, health insurance, and others. They also participate in training sessions, campaigns, and internal programs, acquiring technical and behavioral skills and knowledge.



ASSETS AND INVESTMENTS

From January, 1st, 2022 to December, 31st, 2022

Economic and Financial Data	R\$
Sales Revenue	306.988.925,51
Payroll	53.736.852,55

Internal Social Indicators	R\$
Food Allowance	2.420.010,56
Social Charges	23.918.145,31
Health	1.360.432,66
Occupational Health and Safety	901.651,47
Education	1.781.195,47
Training and Professional Development	240.478,49
Donations	- -

External Social Indicators	R\$
Federal Taxes	6.973.656,68
State Taxes	4.064.717,38
Municipal Taxes	3.917.956,71



Environmental Indicators	R\$
Company Operations	3.739.061,61
Environmental Remediation	2.537.261,00

Mineral Deposits	Toneladas
Charcoal	32.389.168
Other Minerals	23.126.551

Investments	R\$
Machinery and Equipment	7.588.919,41
Industrial Installations	5.929.267,70
Buildings	3.165.612,89
Furniture and Tools	109.428,08
Equipment and Software	319.841,34
Vehicles	909.998,20
Maracajá	43.594,44

Calculation Base	R\$
Gross Income	306.988.925,51
Net Income	275.271.126,74
Operational Income	290.428.953,05

CREDITS AND CORPORATE INFORMATION

RIO DESERTO COAL INDUSTRY LTD.

Head Office

Getúlio Vargas Avenue, 515

Downtown, Criciúma (SC)

Zip code: 88801-500

riodeserto@riodeserto.com.br

www.riodeserto.com.br

DIRECTORS

Heitor Agenor Zanette

Giovanni Pagnan Zanette

Valcir José Zanette

FINANCIAL AND ADMINISTRATIVES ADVISORS

João Gabriel Pagnan Zanette

Eduardo Netto Zanette

COORDINATION

Edvaldo Apolinário

COPYWRITER

Vanessa Colombo Nórdio (JP 03972-SC)

LAYOUT

Laura Nuernberg Ávila

PROOFREADING

Sandreli Vieira de Jesus

PICTURES

Arquivo Rio Deserto

Freepik - Banco de Imagens

For comments and suggestions regarding this report, please send an email to marketing@riodeserto.com.br

